AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (previously presented) A method of producing a biologically active oligomeric form of α-lactalbumin, which method comprises contacting α-lactalbumin, which is in the molten globule-like state, with a conversion reagent selected from the group consisting of fatty acids and lipids, wherein said fatty acids and lipids are found in a casein containing fraction obtainable from human milk, wherein said method results in the production of said biologically active oligomeric form.

2. (previously presented) A method according to claim 1 wherein α-lactalbumin in the molten globule-like state is contacted with the conversion reagent under conditions which allow ion exchange to take place.

3. (original) A method according to claim 1 wherein α-lactalbumin in the molten globule-like state is applied to an ion exchange column, which contains the conversion reagent.

4. (original) A method according to claim 2 wherein the ion exchange column is an anion exchange column.

5. (original) A method according to claim 2 or claim 3 wherein the ion exchange column has been eluted with the conversion reagent.

6. (previously presented) A method according to claim 1 wherein at least 50%w/w of the α-lactalbumin is in the molten globule-like state.

7. (currently amended) A method according to claim 6 wherein the α-lactalbumin is subjected to a pretreatment step in order to ~~maximise~~ maximize the amount of molten globule-like material present.

8. (previously presented) A method according to claim 7 wherein the pretreatment step comprises contacting the α-lactalbumin with a calcium chelating agent.

9. (original) A method according to claim 8 wherein the calcium chelating agent is ethylene diamine tetraacetic acid.

10. (previously presented) A method according to claim 7 wherein the pretreatment step comprises exposing the α-lactalbumin to a pH of 2.

11. (previously presented) A method according to claim 10 wherein the pH of 2 is created by addition of hydrochloric acid.

12. (previously presented) A method according to claim 8 wherein the pretreatment step comprises heating the α-lactalbumin to a temperature of from 25°C-120°C.

13. (original) A method according to claim 12 wherein the temperature is from 70°C to 120°C.

14. (currently amended) A method according to claim 1 wherein α-lactalbumin is ~~applied to~~ contacted with the conversion agent on an ion exchange column, and wherein α-lactalbumin is applied to the column together with a molten globule inducing reagent, which will induce it to form the molten globule-like state.

15. (original) A method according to claim 14 wherein the molten globule inducing reagent is a calcium chelating agent which is present in the elution buffer.

16. (previously presented) A method according to claim 15 wherein the calcium chelating agent is ethylene diamine triacetic acid (EDTA).

17-18. (cancelled)

19. (previously presented) A method according to claim 1 wherein the fatty acid is oleic acid.

20. (currently amended) A method according to claim 1 wherein calcium-binding sites in the α-lactalbumin ~~is a mutated form of the native protein in which calcium binding sites are modified so that they do not bind calcium~~ have been inactivated.

21. (currently amended) A method according to claim 20 wherein a cysteine residue of the α-lactalbumin is mutated to another amino acid.

22. (previously presented) A method for producing an oligomeric form of α-lactalbumin which comprises exposing a source of α-lactalbumin to an ion exchange medium which has been pretreated with a casein containing fraction of milk, or an active component thereof selected from the group consisting of fatty acids and lipids found in a casein containing fraction obtainable from human milk, and recovering α-lactalbumin in an oligomeric form therefrom.

23. (original) A method according to claim 22 wherein the active component of casein is oleic acid.

24. (previously presented) A method according to claim 23 wherein the oleic acid is in pure form.

25. (original) A method according to claim 22 wherein the ion exchange medium has been treated with a casein containing fraction derived from human milk.

26. (previously presented) A method according to claim 25 wherein the ion exchange medium has been treated with a casein containing milk fraction which has been previously frozen or is derived from frozen milk.

27. (original) A method according to claim 25 or claim 26 wherein the casein used in the pretreatment of the ion exchange medium has been subjected to hydrolysis.

28. (previously presented) A method according to claim 22 wherein the α-lactalbumin applied to the ion exchange medium is in the molten globule-like state.

29. (original) A method according to claim 28 wherein the α-lactalbumin is formed into the molten globule-like state by contacting it with a calcium chelating agent.

30. (original) A method according to claim 29 wherein the calcium chelating agent is ethylene diamine tetraacetic acid.

31. (original) A method according to claim 29 or claim 30 wherein the calcium chelating agent is contacted with the α-lactalbumin prior to contact with the ion exchange medium.

32. (previously presented) A method according to claim 30 wherein the calcium chelating agent is added to an elution buffer which is then used to effect the contact between the α-lactalbumin and the ion exchange medium.

33. (currently amended) A method according to claim 26 wherein the α-lactalbumin is subjected to a pretreatment step involving exposure to a ~~low~~ pH of the order of 2.

34. (currently amended) A method according to claim 26 wherein the α-lactalbumin is subjected to a pretreatment in which it is heated to a temperature of from 25°C to 120°C.

35. (previously presented) A method according to any one of claims 28 to 30 and 32 to 34 wherein the ion exchange medium is arranged in a column.

36. (previously presented) A method according to claim 28 wherein the ion exchange medium comprises Diethylaminoethanol (DEAE) Trisacryl.

37. (previously presented) A method according to claim 28 which comprises passing a casein containing milk fraction or one or more active components thereof in an ion exchange buffer down an ion exchange column, washing the column with ion exchange buffer, and then passing a source of α-lactalbumin dissolved in the ion exchange buffer down the ion exchange column in the presence of a salt concentration gradient.

38. (original) A method according to claim 37 wherein the ion exchange buffer is Tris-HCl.

39. (original) A method according to claim 37 or claim 38 wherein the salt concentration gradient is produced using an ion exchange buffer in which sodium chloride is dissolved.

40. (original) A method according to claim 39 wherein the column is washed by elution of ion exchange buffer twice.

41. (previously presented) A method according to claim 1 wherein the α-lactalbumin comprises monomeric bovine α-lactalbumin.

42. (previously presented) A method according to claim 1 wherein the α-lactalbumin comprises monomeric human α-lactalbumin.

43. (original) An ion exchange medium for use in the method of any one of the preceding claims, said medium having been treated with a casein containing milk fraction or an active component thereof.

44. (previously presented) An ion exchange medium according to claim 43 wherein the medium has been treated with an active component of casein comprising oleic acid.

45. (previously presented) An ion exchange column which comprises an ion exchange medium according to claim 43 or claim 44.

46. (previously presented) An oligomeric form of α-lactalbumin obtained by a method according to claim 1.

47. (previously presented) A method according to claim 20 wherein the calcium binding site is destroyed.

48. (previously presented) A biologically active oligomeric form of non-human α-lactalbumin, obtainable by a method according to claim 1.

49. (previously presented) A biologically active oligomeric form of bovine α-lactalbumin, obtainable by a method according to claim 1.

50. (new) A biologically active complex comprising a mutated form of native α-lactalbumin in which calcium binding sites or domains are inactive and a conversion agent selected from oleic acid or a reagent which acts on α-lactalbumin in a manner similar to oleic acid.